

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A content-based multimedia retrieval system, comprising
a first color ~~quantization means for extracting~~ quantizer which extracts a color
histogram of query multimedia data;

g. a second color ~~quantization means for extracting~~ quantizer which extracts a color
~~histograms~~ histogram of multimedia data to be retrieved ; and

a histogram ~~conversion means for converting~~ converter which converts the color
histogram of one of the extracted query multimedia data and ~~the color histogram of the~~
multimedia data to be retrieved into a histogram having a color space and color quantization
method of the other of the extracted query multimedia data and the multimedia data to be
retrieved so as to be same each other.

2. (Original) The content-based multimedia retrieval system according to claim 1,
wherein the multimedia data are image data or video data.

3. (Cancelled)

4. (Original) The content-based multimedia retrieval system according to claim 1 wherein the content-based multimedia retrieval system further comprises a description means for describing color space and color quantization information, which are the bases of the color histograms, wherein the description means comprises:

a color space description means for describing color space constructing the color histogram; and

Q, a quantization description means for describing color quantization method constructing the color histogram.

5. (Original) The content-based multimedia retrieval system according to claim 1, wherein the histogram conversion means converts the color histogram of the query multimedia data so as to be corresponding to color space and color quantization method of the multimedia data to be retrieved.

6. (Currently Amended) A content-based multimedia retrieval method, comprising
inputting query multimedia data;
converting ~~[[the]]~~ a color histogram of one of the inputted query multimedia data
and ~~the color histogram of the multimedia data to be retrieved~~ into a color histogram having a

color space and color quantization method of the other of the inputted query multimedia data and the multimedia data to be retrieved so as to be same each other; and

calculating a similarity between the query multimedia data and multimedia data to be retrieved on the basis of the converted color histogram and outputting a retrieval result in accordance with the calculated similarity.

Q. 7. (Original) The content-based multimedia retrieval method according to claim 6, wherein the multimedia data is image data or video data.

8. (Cancelled)

9. (Original) The content-based multimedia retrieval method according to claim 6, wherein the converting process for converting into the same histogram comprises:

judging whether the color histogram of the query multimedia data is extracted before;

reading a color histogram value extracted before and identifying based color space and color quantization method;

reading a color histogram value of the multimedia data to be retrieved and identifying based color space and color quantization method; and

converting the color histograms into the color histograms of the same color space and color quantization method when the color histogram of the query multimedia data and the color histogram of the multimedia data to be retrieved are not same in comparing.

Q. 10. (Original) The content-based multimedia retrieval method according to claim 9, wherein the content-based multimedia retrieval method further comprises extracting a color histogram of the inputted query multimedia data when the color histogram of the query multimedia data is not extracted before.

11. (Original) The content-based multimedia retrieval method according to claim 6, wherein the process for converting into the same histogram is performed by referencing the color space description information and quantization description information of the multimedia data to be retrieved and query multimedia data.

12. (Original) The content-based multimedia retrieval method according to claim 6, wherein the process for outputting the retrieval result comprises:

comparing the calculated similarity with a certain threshold value; and

outputting multimedia data corresponding to the color histogram of the multimedia data to be retrieved as a similar multimedia data when the similarity is larger than the certain threshold value.

13. (Currently Amended) A content-based multimedia retrieval method for retrieving multimedia data by comparing query multimedia data with multimedia data to be retrieved, comprising:

Q. extracting a color histogram of the query multimedia data;

extracting a color histogram of the multimedia data to be retrieved;

comparing the extracted color space and color quantization method of the query image with the color space and color quantization method of the multimedia data to be retrieved; and

converting the color histogram of one of the extracted query multimedia data ~~[[or]]~~ and the multimedia data to be retrieved into ~~the same a~~ a color histogram ~~so as to have~~ having a same color space and color quantization method as the other of the extracted query multimedia data and the multimedia data to be retrieved, each other when the color spaces and color quantization methods of the extracted multimedia data and multimedia data to be retrieved are different each other, and

performing a retrieval in accordance with [[the]] a similarity between the query multimedia data and multimedia data to be retrieved.

Q 14. (Original) The content-based multimedia retrieval method according to claim 13, wherein the content-based multimedia retrieval method further comprises a step of performing a retrieval in accordance with the similarity between the extracted query multimedia data and multimedia data to be retrieved when the color space and color quantization method of the extracted query multimedia data are same as the color space and color quantization method of the multimedia data to be retrieved.

15. (Original) The content-based multimedia retrieval method according to claim 13, wherein the converting process for converting the color histogram converts the color space and color quantization method of the query multimedia data so as to correspond to the color space and color quantization method of the multimedia data to be retrieved.

16. (Original) The content-based multimedia retrieval method according to claim 13, wherein the process for converting the color histogram converts the color space and color quantization method of the multimedia data to be retrieved so as to correspond to the color space and color quantization method of the query multimedia data.

17. (Original) A content-based multimedia retrieval method, comprising
- comparing the color spaces and color quantization methods of the query multimedia data and multimedia data to be retrieved;
- converting the color histogram of the query multimedia data or color histogram of the multimedia data to be retrieved when the color space and color quantization method of the query multimedia data and the color space and color quantization method of the multimedia to be retrieved are different; and
- calculating a similarity between the converted or unconverted query multimedia data and multimedia data to be retrieved, and performing a retrieval in accordance with the calculated similarity.

18. (Original) The content-based multimedia retrieval method according to claim 17, wherein the color histogram converting process converts the color histogram of query multimedia data so as to correspond to the color space and color quantization method of the multimedia data to be retrieved.

19-27. (Cancelled)

28. (Currently Amended) A content-based multimedia retrieval system, comprising:
a first color ~~quantization means for extracting~~ quantizer which extracts a color histogram of ~~[[the]]~~ multimedia data to be retrieved;
a description means for describing color space and color quantization method of ~~[[the]]~~ an extracted color histogram; and
a second color ~~quantization means for extracting~~ quantizer which extracts a color histogram of ~~[[a]]~~ query multimedia data ~~[[with]]~~ using a method which is same as the described color space and color quantization method in order to perform the multimedia data retrieval.

Q1 29. (Original) The content-based multimedia retrieval system according to claim 28, wherein the content-based multimedia retrieval system further comprises a retrieval unit for calculating a similarity between the color histogram of the query multimedia data extracted before and the color histogram of the multimedia data to be retrieved, and outputting multimedia data in accordance with the calculated similarity as a retrieval result.

30. (Original) The content-based multimedia retrieval system according to claim 29, wherein the content-based multimedia retrieval system further comprises a database for storing the color histogram of the extracted query multimedia data.

31. (Original) The content-based multimedia retrieval system according to claim 29, wherein the description means comprises:

a color space description means for describing color space information which is the basis of the color histogram of the extracted multimedia data to be retrieved; and

a quantization description means for describing color quantization information which is the basis of the color histogram of the extracted multimedia data to be retrieved.

32. (Currently Amended) A content-based multimedia retrieval method, comprising:

Q. judging whether [[the]] a color histogram of [[the]] query multimedia data corresponding to [[the]] a color space and quantization method of [[the]] multimedia data to be retrieved is stored in advance before; and

calculating a similarity between the color histogram of the stored query multimedia data and the color histogram of the multimedia data to be retrieved and performing a multimedia retrieval in accordance with the calculated similarity.

33. (Original) The content-based multimedia retrieval method according to claim 32, wherein the content-based multimedia retrieval method further comprises:

Serial No. 09/785,443

Docket No. P-187

Amdt. dated April 20, 2004

Reply to Office Action of January 20, 2004

quantizing and extracting the query multimedia data with the color space and color quantization method of the multimedia data to be retrieved when the color histogram of the query multimedia data is not stored before;

storing the color histogram of the quantized and extracted query multimedia data;

and

Q1 calculating a similarity between the color histogram of the extracted query multimedia data and the color histogram of the multimedia data to be retrieved and performing a multimedia retrieval in accordance with the calculated similarity.
